SHORT-TERM POSITIONS HELD

1968 *Visiting Lecturer* (Summer Session), Department of Geology and Geography, University of Massachusetts, Amherst
1981 *Visiting Scholar* (May-August) Department of Economics, University of Queensland, St. Lucia, Queensland, Australia.
1983 *Visiting Scholar*, (May-June) Korea Research Institute for Human Settlements, Seoul, Korea
1985 *Visiting Scholar* (May-August) Department of Economics, University of Queensland, St. Lucia, Queensland, Australia.
1987 *Visiting Scholar* (January) Department of Geography, Bar Ilan University, Ramat Gan, Israel
1989 [July], 1990 [July], 1991 [February and June] *Visiting Scholar* Interuniversity Center in Economics, Universitas Indonesia, Jakarta

RESEARCH EXPERIENCE

Consultant, *National Park Economic Impact Study*, University of Washington, 1969

Consultant, *Research in the Application of Input-Output Interregional Analysis to State Planning and Program Activities: Subarea Economic Analysis*, University of Washington, 1969

Senior Research Associate, *South-East Kent Input-Output Study*, University of Kent, Canterbury, England 1970-71

Co-Principal Investigator, *Development of a System for Projecting Sub-State Employment and Population for the State of Illinois*, 1975, University of Illinois ($16,000)

Co-Principal Investigator, *Macro-Economic Impact of Environmental Legislation*, 1975-1976, University of Illinois ($26,000)

Consultant, *Macro-Economic Impact of Environmental Legislation*, Illinois Institute of Environmental Quality, 1976-77

Consultant, *Evaluation of the Rational Threshold Value System of the Economic Impact Forecast System*, U.S. Army Construction Engineering Research Laboratory, 1977

Associate Investigator, *Ohio River Basin Energy Demand Study*, USEPA 1977-1978 ($108,000)

Consultant, *Measurement of Regional Development Indicators*, U.S. Army Corps of Engineers Waterways Experimental Station, 1978.

Principal Investigator, *Evaluation of Methods for Generating Sub-State Input-Output Tables from State Input-Output Models*, Bureau of the Budget, State of Illinois, 1978 ($2,500).

Principal Investigator, *Space-Time Employment Modeling*, NSF, 1978-1980 ($46,000).

Consultant, *Organization of Regional Centers for the Provision of Energy Management and Conservation Assistance to Communities*, Argonne National Laboratory, 1978

Consultant, *Development of a Model for Monitoring and Evaluation of Regional Development Projects, Ministry of Coordination*, Athens, Greece, 1979-1980

Principal Investigator, *Preparation and Testing of Alternative Methods for Disaggregating County Data*, U.S. Army CERL, 1980 ($13,000)

Co-Principal Investigator, *Development of Regional and Interregional Accounting Systems for Project Selection, Monitoring and Evaluation in Developing Rural Economies*, US AID Title XII Strengthening Grant, 1980-1981 ($20,000)

Principal Investigator, *Holistic and Partitive Accuracy in Regional Input-Output Analysis*, NSF, 1982-84 ($76,000)

Principal Investigator, *Feasibility Analysis for Incorporation of Sector Specific Input-Output Type Multipliers in EIFS*, U.S. Army CERL, 1982 ($9,600)

Principal Investigator, *Sensitivity Analysis in Regional Interindustry Modelling*, NSF 1984-86 ($56,000)

Principal Investigator, *Incorporation of Migration Impacts into EIFS* U.S. Army CERL, 1985 ($9,800)

Co-Principal Investigator, *Assessing the Impacts of Increased Agricultural Value-Added on Illinois' Economy: an Input-Output Model Application*, College of Agriculture, University of Illinois, 1987-88 ($37,500)

Co-Principal Investigator, *Economic and Physical Impacts from Extreme Fluctuations in Lake Michigan Levels along the Illinois Shoreline*, US EPA, 1987-88 ($36,000)

Principal Investigator, *Extensions to an Interregional Computable General Equilibrium Model for Korea*, SSRC, 1988-89 ($12,000)

Co-Principal Investigator, *Development of an Illinois Input-Output Model and Extensions*, Federal Reserve Bank of Chicago, 1988-89 ($50,000)

Principal Investigator, *New Directions in Input-Output Modeling*, NSF, 1989-1991 ($114,000)

Co-Principal Investigator, *Development of an Integrated Forecasting Model of the Chicago Economy*, Chicago Economic Development Commission, 1989-90 ($45,000)

Principal Investigator, *Development of a Prototype Computable General Equilibrium Model to Estimate the Impacts of the US-Canada Free Trade Agreement on the Midwest and Northeast Economies*, Economic Development Administration, US Department of Commerce, 1989-1991 ($117,000)

Principal Investigator, *Development of an Integrated Forecasting Model for the State of Iowa*, Legislative Fiscal Bureau, State of Iowa, 1990-1991 ($100,000)

Principal Investigator, *Scenario Development and Occupational Forecasts for the Chicago Economy*, Chicago Economic Development Commission, 1990-1991 ($35,000)

AWARDS

Fulbright Travel Grant, 1965

Woodrow Wilson Dissertation Fellowship, 1968-1969

PUBLICATIONS

(1) Monographs

Geoffrey J.D. Hewings: **Regional Industrial Analysis and Development** (1977, Methuen, London, St. Martin's Press, N.Y.).

John Rees, Geoffrey J.D. Hewings and Howard A. Stafford eds.: **Industrial Location and Regional Systems** (1981 Bergin, New York: Croom Helm, London).

Geoffrey J.D. Hewings: **Regional Input-Output Analysis** (Beverley Hills: Sage Scientific Geography Series 1985; Second Printing, 1989)

I. Orishimo, Geoffrey J.D. Hewings and P. Nijkamp eds.: **Information Technology and Urban-Environmental Systems** (Springer-Verlag, 1988)

John J. Ll. Dewhurst, Geoffrey J.D. Hewings and Rodney C. Jensen eds: **Regional Input-Output Modelling: New Developments and Interpretations** (Avebury, 1991)

(2) Chapters in Books

Geoffrey J.D. Hewings and Breandan O'hUallachain "The Role of Industrial Factors in the Development of Regional Systems," in F.E.I. Hamilton and G.R. Linge (eds) **Spatial Analysis, Industry and Industrial Environment**, Volume 3 (Wiley, 1983), 41-57.

Geoffrey J.D. Hewings and Peter Dicken "The Changing Organisational Structure of Regional Economies and the Role of Transnational Corporations: Some Research Issues in B. T. Robson and J. Rees (eds.) **Geographical Agenda for a Changing World** SSRC, London, 1982, 57-77.

Geoffrey J.D. Hewings "Regional and Interregional Accounting Systems for Development Planning under Conditions of Limited Information" in P. Nijkamp and L. Chatterji (eds.) **Urban and Regional Policy Analysis in Developing Countries** (Croom Helm, London 1983), 181-202.

Geoffrey J.D. Hewings and Yong-Jae Lee "National-Regional Accounting Systems for Regional Development for Regional Development in Developing Countries" in G-C. Lim (ed.). **Urban Planning and Spatial Strategies in Rapidly Changing Societies**, Princeton: Woodrow Wilson School, 1983, pp. 18 206.

Geoffrey J.D. Hewings "Limited information in spatial analysis and development planning" in G. Bahrenberg, M. Fischer and P. Nijkamp (eds.), **Theory and Measurement in Spatial Data Analysis**, (Gower, London 1984), 145-162.

Geoffrey J.D. Hewings "Prob: :s of Integration in the Modelling of Regional Systems" in P. Batey and M. Madden (eds.) **Integrated Analysis of Regional Systems** (London, Pion 1986).

Geoffrey J.D. Hewings and R.C. Jensen "Regional and Interregional Input-Output Models" in E.S. Mills and P. Nijkamp (eds.) **Handbook in Urban and Regional Economics** (Amsterdam, North Holland, 1986), 295-355.

Geoffrey J.D. Hewings "Transportation and Energy" in S. Hanson (ed.) **Urban Transportation** (Guildford Press, New York, 1986), 280-300

Geoffrey J.D. Hewings "Industrial Complex Analysis" in J. Clapp and S. Messner (eds) **Real Estate Market Analysis** (New York,Praeger, 1988), 17-46

Geoffrey J.D. Hewings, R.C. Jensen and M. Sonis "Fields of influence of technological change in input-output models," in I. Orishimo, P. Nijkamp and G.J.D. Hewings (eds) **Information Technology and Urban-Environmental Systems** (Springer-Verlag, New York & Berlin 1988), 163-194

M. Sonis and Geoffrey J.D. Hewings, "Superposition and decomposition principles in hierarchical social accounting and input-output analysis," in F. Harrigan and P. McGregor (eds.) **Recent Advances in Regional Economic Modelling** (London, Pion, 1988), 46-65

M. Sonis and Geoffrey J.D. Hewings "Error and sensitivity input-output analysis: a new approach," in R.E. Miller, K.R. Polenske, A. Rose (eds.) **Frontiers of Input-Output Analysis** (New York, Oxford, 1989)

M. Sonis and Geoffrey J.D. Hewings "The `Matrioshka Principle' in the hierarchical decomposition of multiregional social accounting systems," in L. Anselin and M. Madden (eds.) **New Directions in Regional Analysis: Integrated and Multiregional Approaches** (London, Pinter, 1990)

A.J. Reynolds and Geoffrey J.D. Hewings, "Airline network structure and regional economic development: US case studies," in K. Peschel (ed) **Infrastructure and the Space Economy** (Berlin: Springer-Verlag)

Geoffrey J.D. Hewings, "Death as final demand: the contributions of Sir Richard Stone to Regional Science," in I. Gordon (ed) **Cambridge Economists and Regional Science** (London, Macmillan, forthcoming, 1991)

Michael Sonis and Geoffrey J.D. Hewings, "Fields of influence and extended input-output analysis: a theoretical account," in John J. Ll. Dewhurst, Geoffrey J.D. Hewings and Rodney C. Jensen eds: **Regional Input-Output Modelling: New Developments and Interpretations** (Avebury, 1991)

Michael Sonis, Geoffrey J.D. Hewings and Rodney C. Jensen, "Structure of Regional Economic Activities: Input-Output Analysis Perspectives," in Frank Dietz, Willem Heijman and Daniel Shefer (Eds.) **Location and Labor Considerations for Regional Development** (Aldershot, Avebury, 1991)

Edison Hulu, Geoffrey J.D. Hewings and Iwan Jaya Azis, "Spatial implications of the export promotion strategy in Indonesia," in T.John. Kim. Gerrit Knaap, Iwan J. Azis (Eds.) **Spatial Development in Indonesia: Review and Prospect**, (Avebury, forthcoming, 1992)

(3) Journal Articles

Geoffrey J.D. Hewings, "Regional Interindustry Models Derived from National Data: The Structure of the West Midlands Economy," **Annals of Regional Science**, 3(1) 1969, 179-191.

Geoffrey J.D. Hewings, "A Note on Forecasting the Economic Base," **Professional Geographer**, 21(5) 1969, 315-318.

Geoffrey J.D. Hewings, "Regional Planning: Problems in the Application of Interregional Input-Output Analysis to State Planning and Program Activities," **Annals of Regional Science**, 4(1) 1970, 114-122.

Geoffrey J.D. Hewings, "Some Thoughts on Regional Forecasting Using Input-Output Models," **Conference Paper**, CP 1 (Centre for Environmental Studies, London) 1971, 71-97.

Geoffrey J.D. Hewings, "Multiregional Input-Output Analysis and Transport Planning: A Critique," in **Regional Transport Planning in Theory and Practice**, Second International Symposium on Transport, Zagreb, Yugoslavia (April 1971).

Geoffrey J.D. Hewings, "Regional Input-Output Models in the U.K.: Some Problems and Prospects for the Use of Nonsurvey Techniques," **Regional Studies**, 5(1) 1971, 11-22.

Geoffrey J.D. Hewings, "The Aggregation of Input-Output Models for Regional Impact Analysis," **Growth and Change**, 3(1) 1972, 15-19.

Geoffrey J.D. Hewings, "The Empirical Identification of Key Sectors in a Regional Economy: A Partial Evaluation of Alternative Techniques," **Environment and Planning**, 6(5) 1974, 439-453.

Geoffrey J.D. Hewings, "Threshold Analysis and Urban Development: An Evaluation," **Annals of Regional Science**, 9(3) 1975, 21-31.

Geoffrey J.D. Hewings, "On the Accuracy of Alternative Models for Stepping-Down Multi-County Employment Projections to Counties," **Economic Geography**, 52(3) 1976, 206-217.

Geoffrey J.D. Hewings, "Evaluating the Possibilities for Exchanging Regional Input-Output Coefficients," **Environment and Planning**, 9(8) 1977, 927-944.

Geoffrey J.D. Hewings, D.M. Chicoine and G.A. Silbert "The Economic Impact of the University of Illinois on the State of Illinois," **Illinois Business Review**, (November 1977).

Geoffrey J.D. Hewings, "The Trade-Off Between Aggregate National Efficiency and Interregional Equity: Some Recent Empirical Evidence," **Economic Geography**, 54(3) 1978, 254-263.

Geoffrey J.D. Hewings and B.N. Janson "Exchanging Regional Input-Output Coefficients: A Reply and Further Considerations," **Environment and Planning**, 12(8) 1980, 843-854.

Peter M. Hooper and Geoffrey J.D. Hewings, "Some Properties of Space-Time Processes,"**Geographical Analysis**, 13(3) 1981, 203-223.

Eugene N. White and Geoffrey J.D. Hewings, "Space-Time Employment Modelling: Some Results Using Seemingly Unrelated Regression Estimators," **Journal of Regional Science**, 22(3) 1982, 283-302.

Geoffrey J.D. Hewings and Michael C. Romanos "Simulating Less Developed Regional Economies Under Conditions of Limited Information," **Geographical Analysis** 13(4) 1981, 373-390.

Geoffrey J.D. Hewings, "Monitoring Changes in a Regional Economy: An Input-Output Simulation Approach," **Modeling and Simulation**, 12 (Part 3) 1981 1043-1046.

Geoffrey J.D. Hewings, "Trade, Structure and Linkages in Developing and Regional Economies" **Journal of Development Economics**, 11 (1982) 91-96.

Geoffrey J.D. Hewings, "Regional and Interregional Interdependencies: Alternative Accounting Systems" **Environment and Planning A**, 14 1982 1587-1600.

Geoffrey J.D. Hewings, "The Empirical Identification of Key Sectors in an Economy: A Regional Perspective" **The Developing Economies**, 20(2) (June 1982) 173-195.

Geoffrey J.D. Hewings, "Design of Appropriate Accounting Systems for Regional Development in Developing Economies" **Papers Regional Science Association**, 51 (1983).

Geoffrey J.D. Hewings and William M. Syversen "A Modified Bi-Proportional Method for Updating Regional Input-Output Matrices: Holistic Accuracy Evaluation" **Modeling and Simulation** 13 (Part 3) 1982 1115-1120.

T.J. Kim, D.E. Boyce and Geoffrey J.D. Hewings, "Combined input-output and commodity flow models for inter-regional development planning: insights from a Korean application," **Geographical Analysis**, 15(4) 1983, 330-342.

Geoffrey J.D. Hewings, "A decomposition approach to the analysis of changes in regional economic structure," **Modeling and Simulation**, 14 (1983), 859-863.

Geoffrey J.D. Hewings, "A cost-effective approach to primary input-output data collection: further comments," **Review of Public Data Use** 11 (1983), 197-199.

Geoffrey J.D. Hewings and R.W. Jackson "Structural change in a regional economy: an entropy decomposition approach" **Modeling and Simulation** 15 (1984) 241-246.

S. Ko and Geoffrey J.D. Hewings, "A regional computable general equilibrium model for Korea" **Modeling and Simulation** 15 (1984) 451-456.

Geoffrey J.D. Hewings, Guest Editor, Special Issue of **Economic Geography** on "New Directions in Regional and Interregional Modelling" 60(2) 1984.

Geoffrey J.D. Hewings, J. Merrifield and J. Schneider, "A Regional Test of the Linkage Hypothesis" **Revue d'Economie Regionale et Urbaine** 25 (1984) 275-290.

Geoffrey J.D. Hewings, "The role of prior information in updating regional input-output models," **Socio-Economic Planning Sciences** 18 (1985) 319-336.

R.C. Jensen and Geoffrey J.D. Hewings, "Short-cut 'input-output' multipliers: a requiem" **Environment and Planning A** 17 (1985) 747-759.

R.C. Jensen and Geoffrey J.D. Hewings, "Short-cut 'input-output' multipliers: the resurrection question, a rejoinder" **Environment and Planning A** 17 (1985) 1551-1552.

R.C. Jensen, G.R. West and Geoffrey J.D. Hewings, "Explorations in the comparison of regional economic structure with input-output models," **Modeling and Simulation** 17:257-262 (1986)

R.C. Jensen, G.R. West and Geoffrey J.D. Hewings, "On the study of regional economic structure using input-output models," **Regional Studies** 22:3 (1988) 209-220.

S.Ko and Geoffrey J.D. Hewings, "A regional computable general equilibrium model for Korea" **Korean Journal of Regional Science** 2: 1987

Geoffrey J.D. Hewings, R.C. Jensen and M. Sonis, "Innovation diffusion in input-output analysis: a new conceptual framework," **Horizons** 20: (1988)

R.C. Jensen, Geoffrey J.D. Hewings, M. Sonis, and G.R. West, "On a taxonomy of economies" **Australian Journal of Regional Studies** 2 (1988) 3-24.

Geoffrey J.D. Hewings and R.C. Jensen "Emerging challenges in regional input-output analysis," **Annals of Regional Science** 22 (1988) 43-53.

Geoffrey J.D. Hewings, M. Sonis and R.C. Jensen, "Fields of influence of technological change in input-output models," **Papers Regional Science Association** 64 (1988) 25-36.

Geoffrey J.D. Hewings, M. Fonseca, J. Guilhoto, and M. Sonis, "Key sectors and structural change in the Brazilian economy: a comparison of alternative approaches and their policy implications," **Journal of Policy Modeling** 11 (1989) 67-90

M. Sonis, Geoffrey J.D. Hewings and R.C. Jensen, " Structural analysis of input-output systems: reflections of Schumpeterian competition view," **Giornate di Lavoro**, Associazione Italiana di Ricerca Operativa, Ottobre, 1989

Geoffrey J.D. Hewings, R.C. Jensen, G.R. West, M. Sonis and R.W. Jackson "The spatial organization of production: an input-output perspective," **Socio-Economic Planning Sciences**, 23 (1989) 67-86

R.W. Jackson, Geoffrey J.D. Hewings and M. Sonis, "Economic structure and coefficient change: a comparative analysis of alternative decomposition approaches," **Economic Geography** 66:216-231(1990)

Hera Susanti Suwandi and Geoffrey J.D. Hewings "Key sectors and development in the Indonesian economy," **Ekonomi Dan Keuangan Indonesia** [Indonesian Journal of Economics and Finance] 37:331-354

Michael Sonis and Geoffrey J.D. Hewings "Coefficient change in input-output models: theory and applications," (**Economic Systems Research**, forthcoming, 1992)

MANUSCRIPTS UNDER REVIEW

M. Madden and Geoffrey J.D. Hewings (eds.) **Essays in Honour of Sir Richard Stone** [Collection of original articles in honor of the 1984 Nobel Laureate in Economics] (Cambridge University Press)

Geoffrey J.D. Hewings, Michael Sonis, Jong Kyun Lee and Sarwar Jahan, "Alternative decompositions of interregional social accounting matrices: applications with reference to Bangladesh," in M. Madden and Geoffrey J.D. Hewings (eds.) **Essays in Honour of Sir Richard Stone** (Cambridge University Press)

Michael Sonis, Geoffrey J.D. Hewings and Jong Kyun Lee, "Interpreting spatial economic structure: three perspectives," (**Geographical Analysis**)

Sarwar Jahan and Geoffrey J.D. Hewings, "Spatial impacts of regional development programs in Bangladesh using a four-region social accounting model," (**Papers in Regional Science**)

Federico Cuello, Fayçal Mansouri and Geoffrey J.D. Hewings, "The identification of structure at the sectoral level: Implications of reformulating the Hirschman-Rasmussen key-sector indices," (**Economic Systems Research**)

MANUSCRIPTS IN PREPARATION

M. Hatfield, Geoffrey J.D. Hewings, and M. Sonis "Comparative analysis of structural change in the Soviet Economy: a decomposition approach"

Edison Hulu and Geoffrey J.D. Hewings, "The development and use of interregional input-output models for Indonesia under conditions of limited information"

Geoffrey J.D. Hewings, Michael Sonis, Sarwar Jahan and J.H. Lee, "Alternative decompositions of social accounting matrices: an application to Bangladesh"

CURRENT RESEARCH INTERESTS

1. The development of regional general equilibrium and social accounting models.

2. Holistic matrix descriptors of regional interindustry systems and measures of regional interindustry structure over time and space.

3. The development of integrated socio-economic models for metropolitan and state planning and impact analysis.

TEACHING INTERESTS

Introductory:

Business Location Decision Making

Upper Undergraduate/Graduate:

Transportation Systems and Spatial Development
Regional Science Methods: Demographic and Economic
Advanced Methods of Regional Science
Issues in Regional Development

INVITED PRESENTATIONS

University of Washington
Australian National University, Canberra
Arizona State University
U.S. Air Force Academy
West Virginia University

Interamerican University, Puerto Rico
Sangamon State University, IL
Governor's Recreation Conference, IL
Korea Research Institute on Human Settlements
Bar Ilan University
Tel Aviv University
CSIRO, Melbourne
York University, Canada
Universita Bocconi, Milano
University of Colorado
University of Maryland
University of Tsukuba, Japan

Portland State University
University of Queensland
Rutgers University
University of Iowa
University of New England, Armidale
Seoul National University, Korea
Northern Illinois University

Haifa University
Hebrew University of Jerusalem
University of Chicago
CLAS, Milano
Universitas Indonesia
University of Manchester, UK
North Carolina University
CRIEPI, Tokyo

ADMINISTRATIVE EXPERIENCE

Departmental

- Awards and Admissions Committee 1975-78
- Chairman, Cartography Position Search Committee 1976-77
- Advisory Committee, 1977-79 1980-83 1991-
- Acting Head, January-June, 1982 May-August 1983
- Head, August 1983-1990

School of Social Sciences/College of Liberal Arts and Science
Courses and Curricula Committee 1975-79
Public Policy Analysis: Ph.D. Program Establishment Committee
Executive Committee, January-June 1982 May 1983
Advisory Committee, Science and Technology Program, 1983-
Chair, Political Science Headship Search Committee, 1986

University
Transportation Research Committee
Evaluation of the Impact of the University of Illinois on the State 1975-76
Committee on Program Evaluation: Evaluation of Landscape Architecture
Regional Science Program Committee, 1978-
Vice Chancellor's Committee to Evaluate College of Education 1984-85
Vice Chancellor's Committee on Campus Priorities 1985-87
Faculty Advisory Committee, Office of Arms Control, Disarmament and International Security 1984-
Boechenstein Chair in Political Economy Search Committee, 1987-
Graduate College Research Board, 1991-1995
Committee on European Studies, 1991-
Director, Regional Economics Applications Laboratory, 1989-

PROFESSIONAL ASSOCIATIONS

American Economic Association
Association of American Geographers
Regional Science Association International
Royal Economic Society
Southern Regional Science Association
MidContinent Regional Science Association
Western Regional Science Association
International Input-Output Association

PROFESSIONAL POSITIONS

Regional Science Association International
Executive Director, Regional Science Association International, 1990-
Executive Secretary, Regional Science Association (International), 1978-1989

Association of American Geographers
Vice-Chairman, (1982-84), Chairman (1984-86) Industrial Systems Specialty Group
Research Grants Committee, 1980 (member), 1981 (Chairman)
Development Committee, 1991-

Other

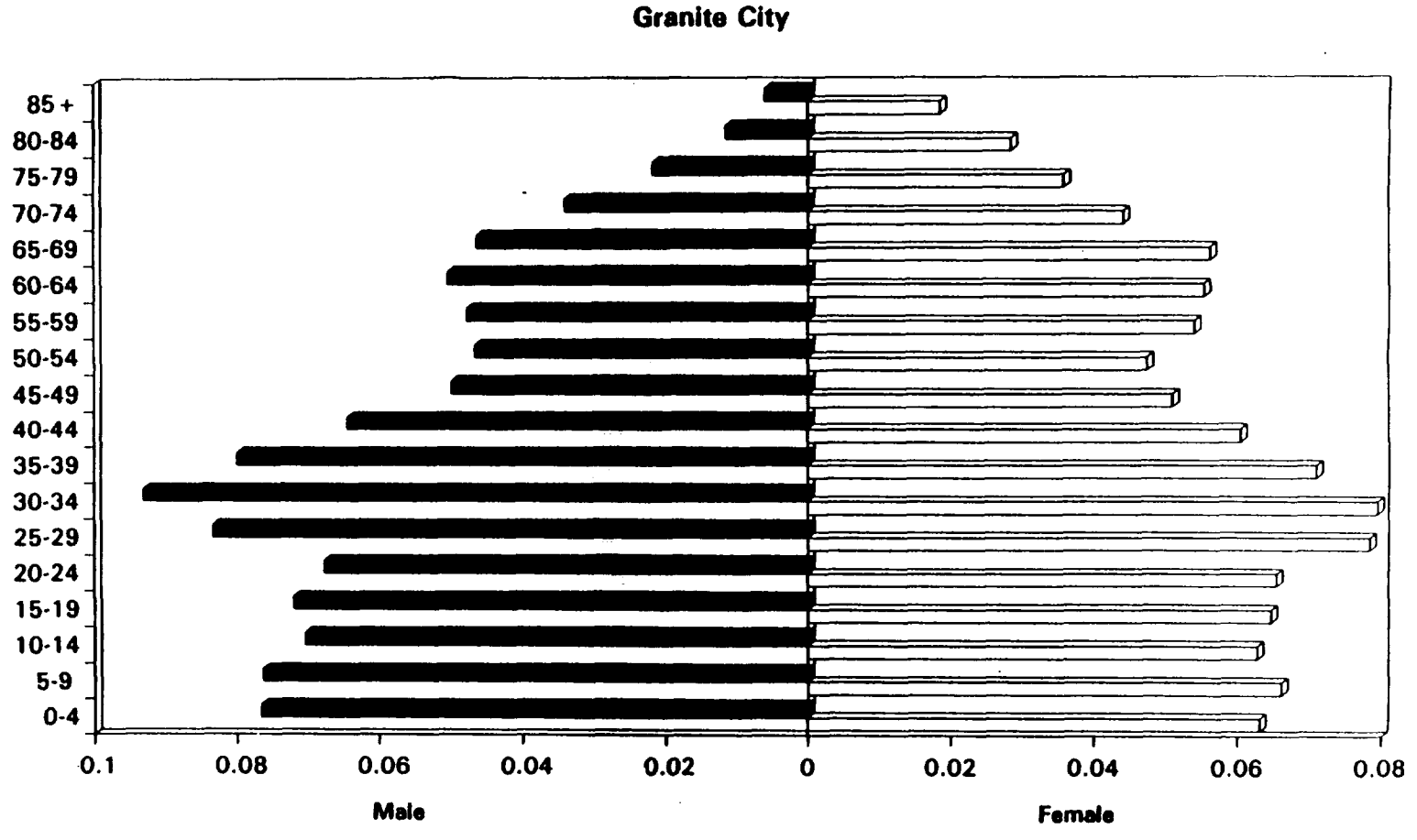
Secretary-Treasurer, **Mid-Continent Regional Science Association** 1975-1979
Book Review Editor, **Regional Science Perspectives**, 1977-1981
Advisory Committee, Illinois Bureau of the Budget, Economics, Energy and Environmental Unit, 1978-1980
External Evaluator, Regional Science Program, University of Queensland, Australia 1981

Member, Editorial Board

Annals Association of American Geographers (1981-1984)
Economic Geography (1981-
International Regional Science Review (1980-
Growth and Change (1984-
Annals of Regional Science (1989-
Geographical Analysis (1990-

Ph.D. STUDENTS (Current Position)

Breandan O'hUallachain (Arizona State University)
Randall W. Jackson (Ohio State University)
C. Taylor Barnes (US Air Force Academy)
Sarwar Jahan (Technical University of Dhaka, Bangladesh)
Helen Briassoulis (University of Aegean) (Ph.D. Urban and Regional Planning)
Suknam Ko (Gyeongsang National University Korea) (Ph.D. Economics)
Adrian Esparza (Indiana University)
Aisling Reynolds (University College, Dublin, Ireland)
Nicholas Buss (Real Estate Research Inc., Chicago)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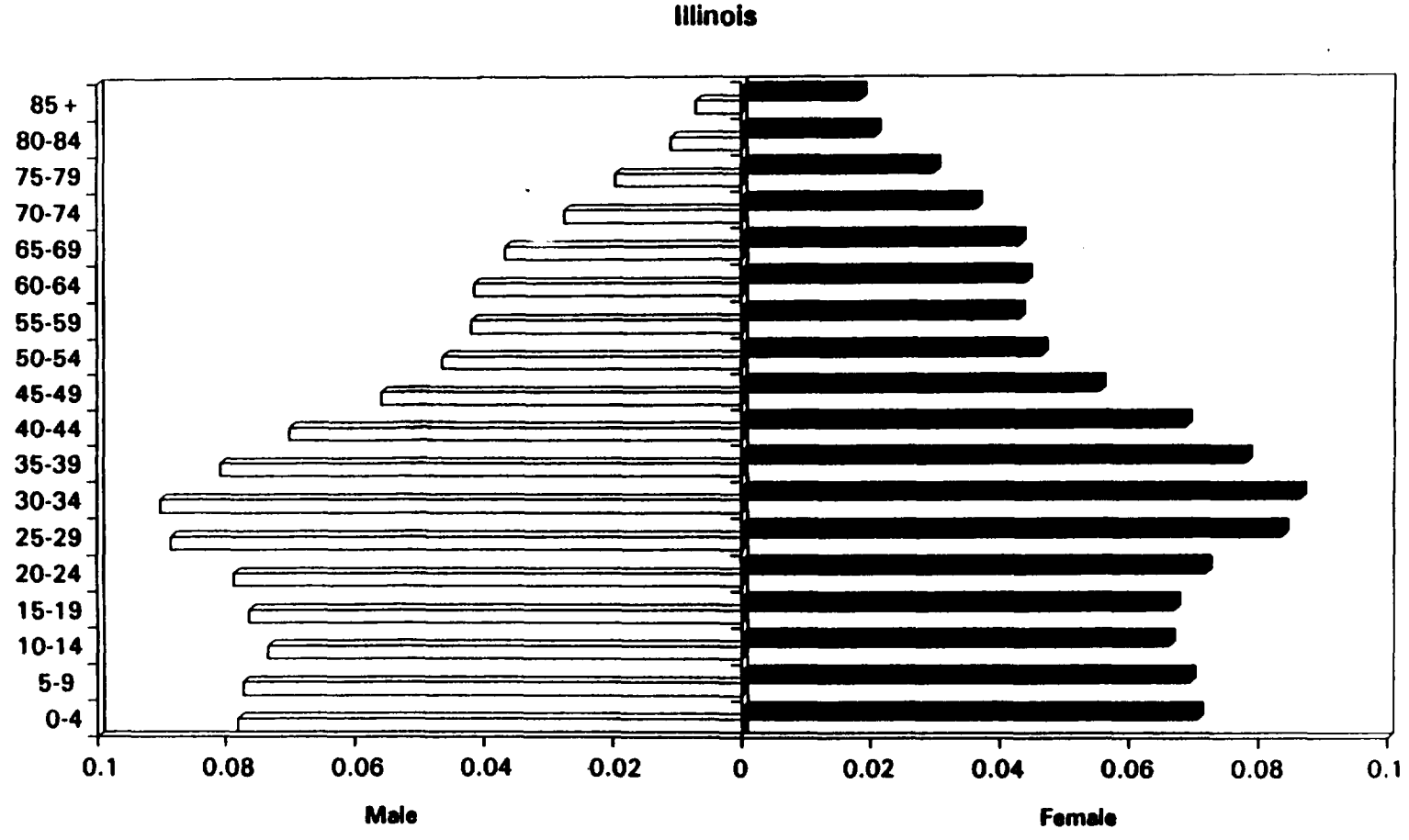
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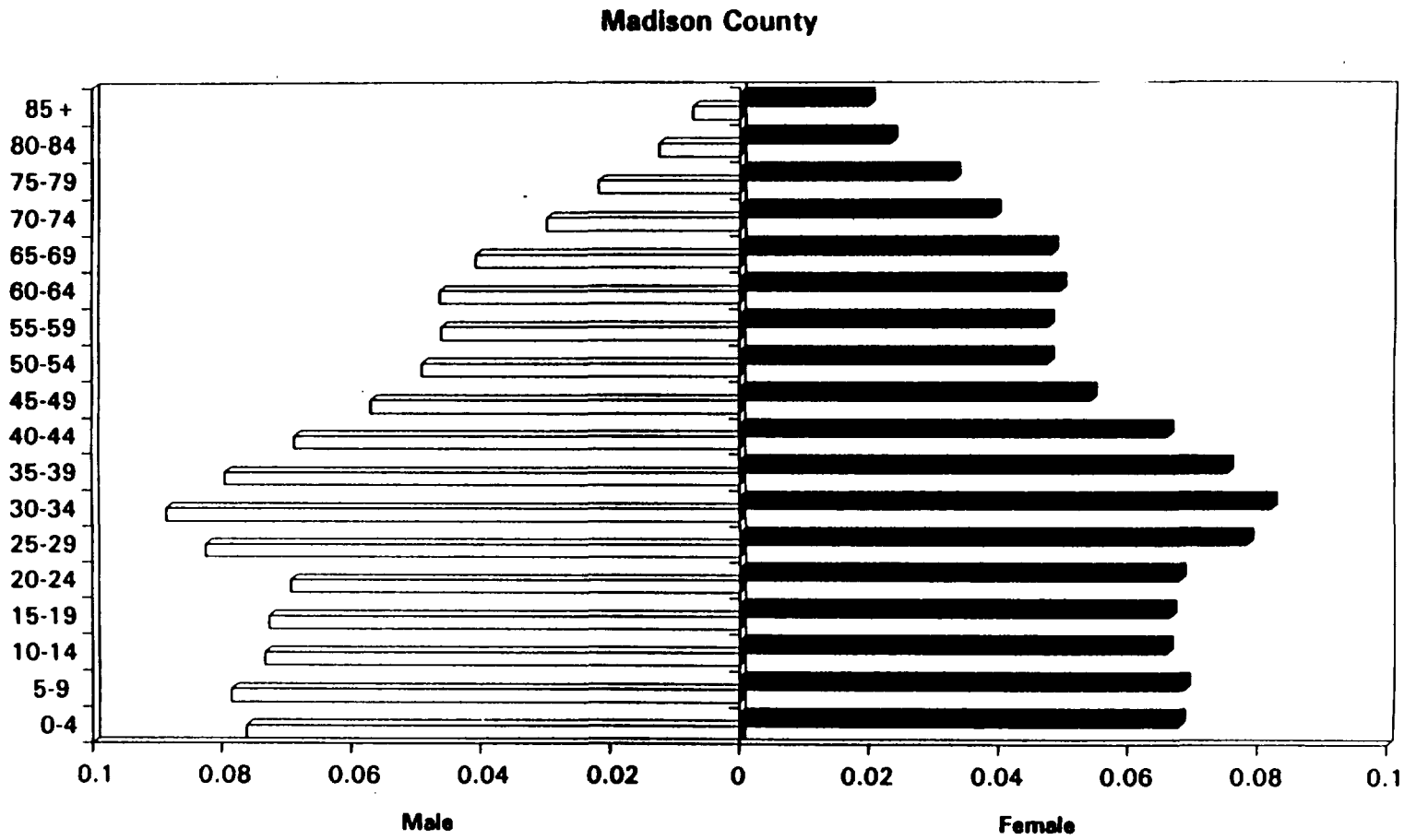
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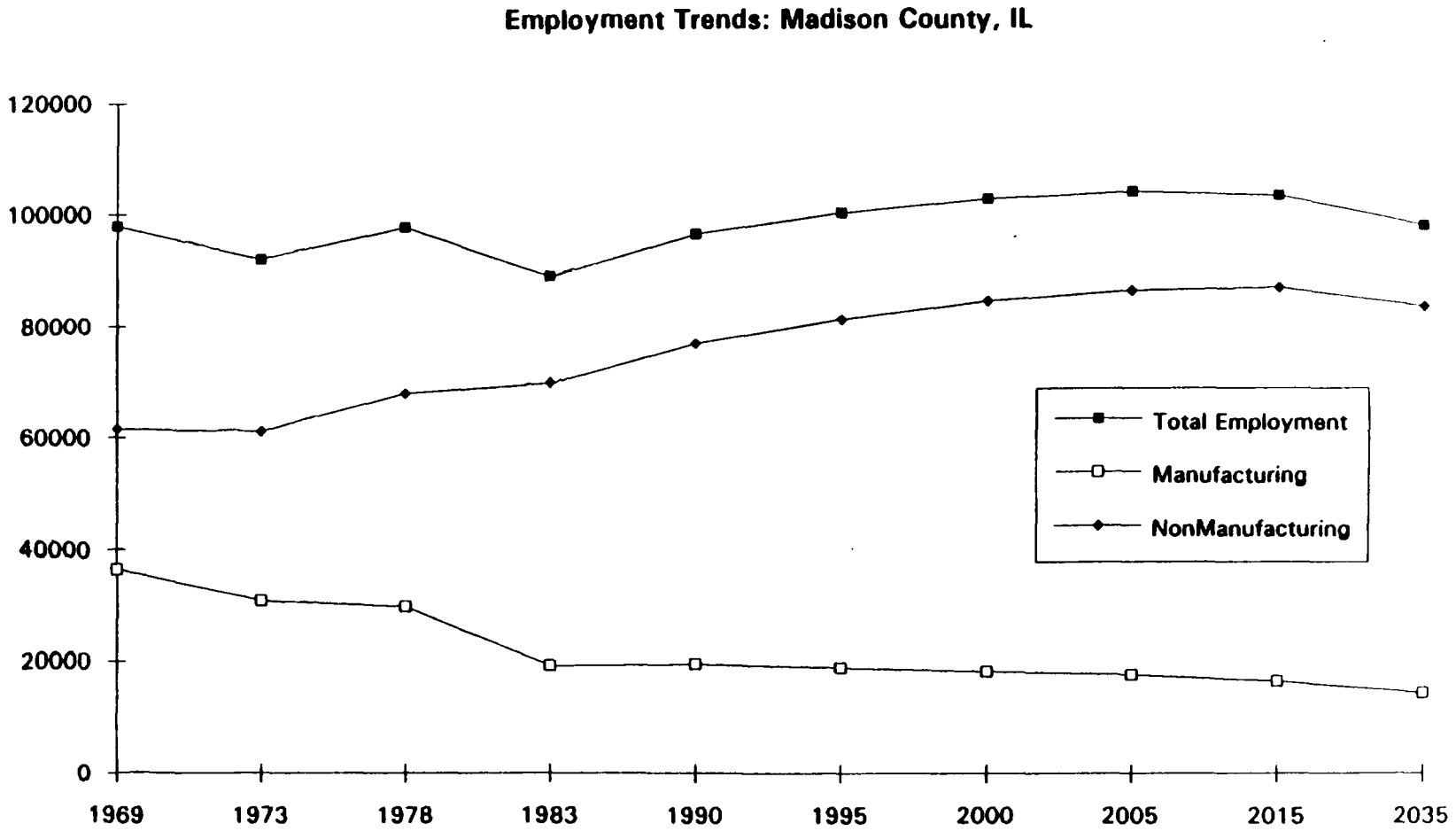
Employment Trends: Madison County, IL
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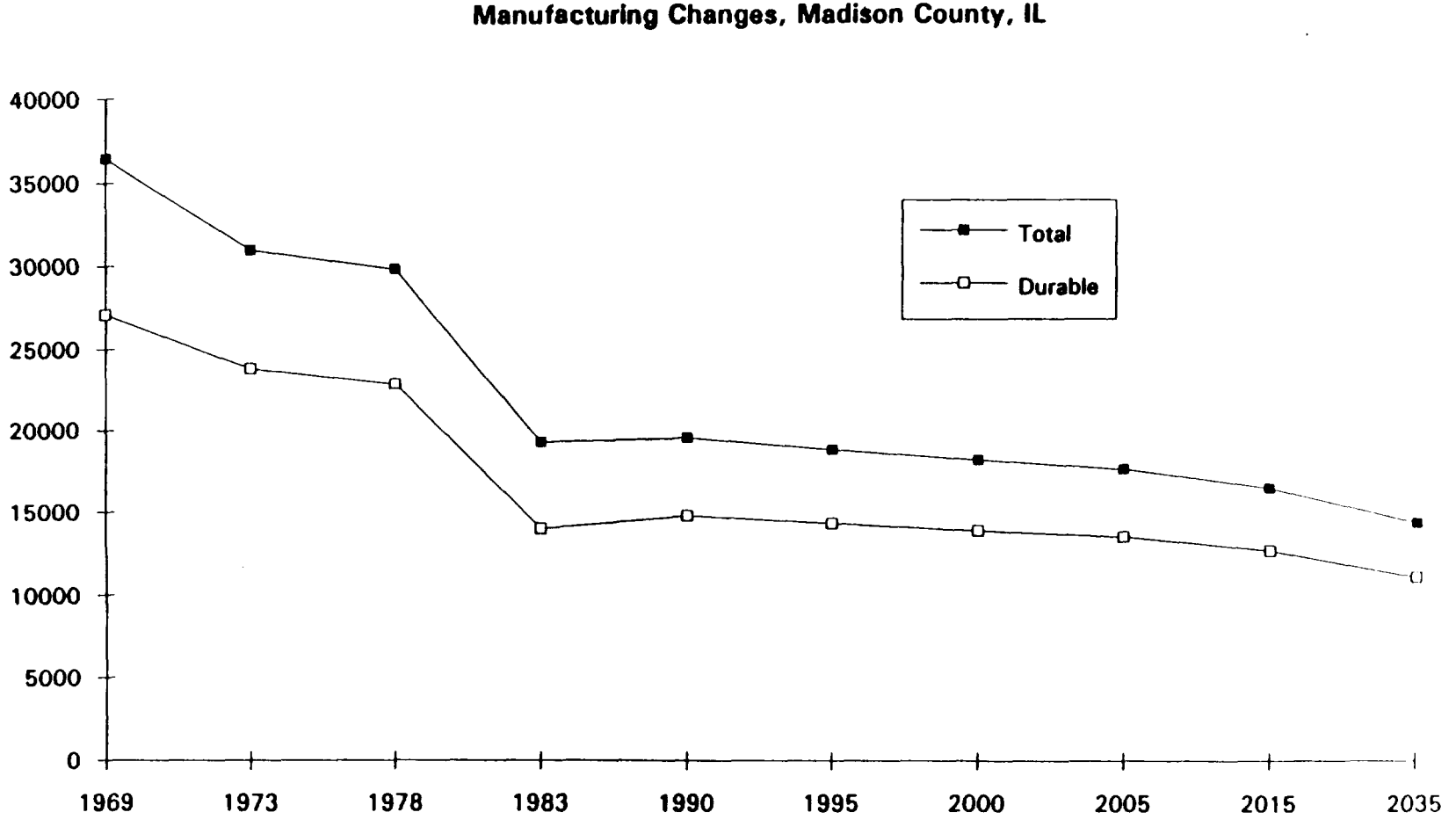
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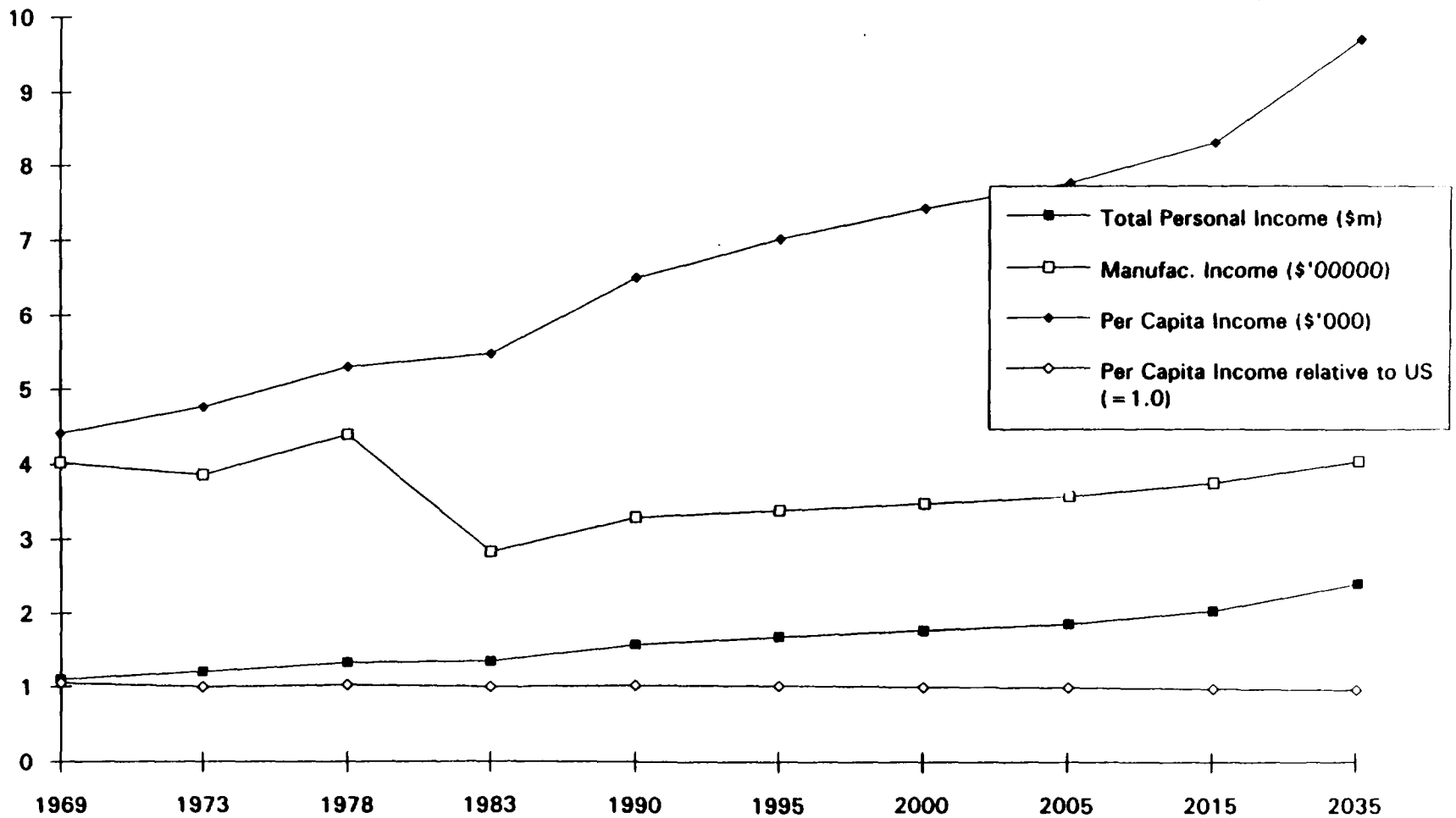
Income in Madison County, IL



RESUME

Geoffrey J.D. Hewings, B.A. (Hons.), M.A., Ph.D.

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Tel: Urbana (217) 333-4740; Chicago (312) 322-5842
Fax: Urbana (217) 244-1785; Chicago (312) 322-2357

Brief Biography

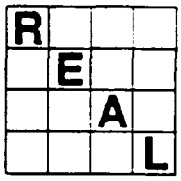
Geoffrey Hewings' major interests are in the modeling of socio-economic activities at the local, state and regional levels with a particular focus on impact assessment. Since data availability at the sub-national level is often a problem, he has specialized in developing modelling techniques that operate in an environment of limited information. The models have been applied to a variety of problems:

- employment projections to provide a link to environmental models
- project selection in developing a regional growth strategy
- impacts of opening and closing of firms on a regional economy
- forecast of alternative scenarios on output, income employment and occupations in regional economies

Since 1989, he has served as Director of the **Regional Economics Applications Laboratory** [**REAL**], a joint venture between the *Federal Reserve Bank of Chicago* and the *University of Illinois*. The major focus of **REAL** is on the development of models of urban and regional economies; in January, 1990, the first version of a model for the Chicago economy was completed providing capabilities for forecasting socio-economic activities on an annual basis through the year 2014. In addition, he is also directing a project designed to provide insights into the effects of the *US-Canada Free Trade Agreement* on the Midwestern states. His international work is currently focused on Indonesia where he is directing efforts towards the completion of a set of interregional input-output, social accounting and computable general equilibrium models for that economy.

Hewings obtained his undergraduate training at the University of Birmingham in England and received his graduate degrees from the University of Washington in Seattle, with the Ph.D. being conferred in 1969. He spent two years directing a research project on input-output analysis at the University of Kent in England prior to accepting a position at the University of Toronto in Canada. Since 1974, he has been at the University of Illinois at Urbana-Champaign where he is currently Professor of Geography and Regional Science and of Urban and Regional Planning. Between 1983 and 1990, he served as Head of the Department of Geography. He has accepted short-term visiting positions at the University of Massachusetts at Amherst, University of Queensland (Australia), Bar Ilan University (Israel), Korea Research Institute for Human Settlements (Seoul) and the Universitas Indonesia (Jakarta). Since 1978, he has assumed the positions of Executive Secretary and Executive Director of the Regional Science Association International, an interdisciplinary professional organization with over 2000 members in 50 countries.

He has published over 60 articles in professional journals and is the author or editor of five books. He has served as a consultant to a number of state and federal agencies in the United States, Greece, Australia, Indonesia and Korea.



THE REGIONAL ECONOMICS APPLICATIONS LABORATORY

Since January, 1989, Hewings has assumed the position of Director of the Regional Economics Applications Laboratory, a joint venture between the Federal Reserve Bank of Chicago and the University of Illinois. The primary focus of REAL is on the development and application of a set of regional analytical models of the Chicago, Illinois and Midwestern economies. Current models include:

A detailed forecasting model for the Chicago Regional economy with projections through the year 2011for employment, output, income for 36ectors.

Models of the Chicago and Illinois economies these that provide information on the linkages between industries within the region and facilitate the estimation of the impacts of changes in activity levels in one industry on the rest of the economy (through the estimation of ripple effects).

The major goal for REAL is to develop a client base from the corporate and public sectors; the *Commonwealth Edison Company* and the *Chicago Economic Development Commission* are currently the major clients. Several smaller companies have provided support for specific projects. Considerable use is made of doctoral-level students from a variety of departments (economics, urban and regional planning and geography) on client-based projects with supervision and support provided by faculty at the University of Illinois and the Research Staff of the Federal Reserve Bank of Chicago.

Summary of Projects Undertaken or In Progress (marked with asterisk).

[*Client listed in parentheses*]

1. Local or County Level

Evaluation of Threshold Analysis as a technique for assessing the optimum size of urban areas from the perspective of infrastructure (Canadian Ministry of Urban Affairs, Ottawa)

The project required an evaluation of Threshold Analysis as a potential technique for assessing the alternatives open for the promotion of urban growth without significant expenditures on new infrastructure (sewage treatment facilities, water treatment plants etc.) in relatively small and medium sized cities.

Active contributor over several years to the development of a comprehensive county-based socio-economic impact system for the United States (US Construction Engineering Research Laboratory, Champaign, Illinois)

The Economic Impact Forecast System (EIFS) is part of a set of county-based models developed initially to handle environmental impact statements associated with military logistics. Subsequently, the system has been used extensively in other federal government agencies and in the private sector. The model will provide assessments of the impacts of any change in activity on a wide variety of measures - business volume, local spending, income, employment and output. Sector-specific multipliers are now available allowing the analyst to pinpoint the impacts of changes in activity on individual sectors.

Development of impacts of the location of the Diamondstar Mitsubishi automobile assembly plant on the economy of Central Illinois and the rest of the state of Illinois*

Using an integrated socio-economic model [REMI], estimates were made of the impact of the new plant on the county in which it was built and the adjacent regions in the state. The model provided annual estimates of the impacts and distinguished between construction and production phases. Subsequent work has focused on prior work experience and locations, attitudes towards employment in joint ventures of a stratified sample of employees; a supplier survey is currently being evaluated.

Economic Impact of the Closure of Chanute Air Force Base on Rantoul and Champaign County, Illinois (Village of Rantoul)

The EIFS system noted above was used to generate a "worst-case" scenario to estimate the impacts of the closure of the USAF facility on a community and the county in terms of employment, income, business volume, school enrollment and municipal revenue and expenditures.

Forecasts of Socio-Economic Indicators in the Chicago region through 2014 (Chicago Economic Development Commission)

Development of a combined econometric-input-output model of the Chicago metropolitan area to measure likely future levels of output by economic sector, income, population, employment, wages rates and investment through the year 2014.

Occupational Projections for Chicago (Chicago Economic Development Commission)

Projection of occupational demands by industry annually over the period 1990-2010 and comparison with national projections under several alternative scenarios.

2. State, Regional and Metropolitan Level

The impact of National Parks on the Washington State economy (US National Park Service)

Development of an input-output model to handle the impacts of tourist expenditures associated with visits to the two National Parks in the State of Washington. While the level of expenditures was significant, a large percentage was made outside the state, thus reducing the impact on the Washington economy.

Application of Interregional Input-Output Analysis for State Planning and Program Activities (Department of Commerce, State of Washington)

A feasibility study designed to explore the possibilities of developing an integrated interregional input-output model to be used for assessing the impact of state government programs on different parts of the state.

Projection of Sub-state Employment for Air Quality Maintenance Area Planning (Illinois EPA)

An evaluation of alternative step-down projection techniques which could be used to allocate state-level population and employment figures to regions within the state. These data would then be used to estimate levels of pollution in certain, key metropolitan regions.

Macro-economic impact of environmental legislation (Illinois Institute for Environmental Quality)

Development of a state input-output model which was then used to measure the impact of proposed environmental legislation on output, income and employment in the state.

Development of an Energy-Economic Input-Output Model for the Ohio Basin Energy Demand Study (US EPA)

This component of a very large study involved the estimation of a linked input-output/linear programming model to assess alternative energy scenarios on the region's (part or all of six states) economy.

Measurement of Regional Development Indicators (US Army Corps of Engineers)

Evaluation of standard socio-economic indicators as measures of regional development at the sub-state level.

Development of Sub-State input-output tables from State input-output tables (Illinois Bureau of the Budget)

A comparative analysis of alternative non-survey techniques for generating regional and interregional tables to estimate the links between the regions of the state's economy

Organization of Regional Centers for the Provision of Energy Management and Conservation Assistance to Communities (Argonne National Laboratory)

Development of procedures for collection and dissemination of appropriate energy conservation assistance material to communities.

Economic and Physical Impacts from Extreme Fluctuations in Lake Michigan Levels along the Illinois Shoreline (US EPA)

Feasibility study designed to explore ways in which economic and physical models can be linked to provide an assessment of the socio-economic impact of lake-shore fluctuations on a local economy.

Assessing the Impacts of Increased Agricultural Value-Added Activity on the Illinois Economy: an Input-Output Model Application. (US Dept. Agriculture)

Feasibility and marketing study of the impact of increasing agricultural product processing prior to export (i.e., the possibilities of exporting a set of products derived from grains rather than the export of the raw grains). Considerable use will be made of a state input-output model for this purpose.

The Economic Integration of Illinois' Regions (Chicago United Business Organization)

A contribution to the debate about the degree to which "downstate" Illinois benefits from activities in the Chicago region. Using employment, a set of econometric equations were developed to assess the "spillovers" within a five region division of the state's economy. The results revealed considerable interconnection.

Measurement of the Impacts of Energy Conservation Programs (Illinois Commerce Commission)

Preparation of testimony comparing alternative methods for assessing the impacts of energy conservation programs on energy and employment within utility districts.

Assessment of Future Socio-Economic Indicators on Recreation Demands (Illinois Department of Conservation)

Evaluation of projections of socio-economic indicators and their use in estimating needs for recreation within the state.

Impact of the University of Illinois on the State's Economy, 1975 and 1987 (University of Illinois)

Estimation of the employment and income impacts of the University on the economy. In 1987, it was estimated that about 90-100,000 individuals' employment could be attributed to the University as a result of its purchases of goods and services and the expenditures (and their impacts) of its employees.

The Structure of the Chicago Economy, 1982-2013* (Chicago Economic development Commission)

Using a combined econometric-input-output model, information is available on the nature and strength of the interactions between sectors within the Chicago economy. Projections of activity levels through the year 2013 have been made.

The Role of Electricity Expenditures in the Chicago Regional Economy (Commonwealth Edison)

This study analyzed the allocation of electricity expenditures by thirty-six sectors in comparison to expenditures on wages and salaries and other intermediate goods and services. Estimation was also made of the ripple effects of the expenditures and the changes observed between 1982 and 1987.

The Nature of Linkages Between High-Tech Firms and the Chicago Economy

Using a survey questionnaire, a model of the degree of integration of high-tech firms was developed. The model revealed substantial backward (purchase of intermediate inputs) linkages but rather week forward (sales) linkages.

Impacts of New Automobile Plants on Economies*

Two studies have been completed (Volkswagon in New Stanton, PA and Diamondstar-Mitsubishi in Bloomington-Normal, IL); a third study will provide an on-going monitoring of the impact of the Diamondstar-Mitsubishi plant, tracing the possible relocations of suppliers into the region and the impacts of new technological developments on production organization and scale.

Airline Network Structure and Economic Efficiency

Using data provided by Continental Airlines, measures of the effect of the hub-and-spoke system on airline efficiency were developed. The procedure also provided information on the optimal usage of aircraft equipment on the network.

Defense Spending and Regional Growth

The procedure attempted to document the dependence of regions within the US on defense spending in terms of both direct (primary contracts) and indirect effects (sub and sub-sub contracts)

New York State Aviation Activity Forecasts Study* (New York State Department of Transportation)

Broadly based assessment of the impact of future growth and development trends on the organization and structure of aviation in New York State with primary emphasis on scheduled carrier service.

Development of an Integrated Econometric Input-output Model for Iowa (State of Iowa)

The model will be similar in scope to the one developed for Chicago; the model will provide the capability to undertake impact analyses and provide annual forecasts for the period 1990-2010.

Competition and Complementarity Among the US Regions

Analysis has been conducted to examine the degree to which growth and decline in one part of the US is associated with growth and decline in other regions. Using US Census Regions, the analysis has revealed significant changes in the shares of gross national product allocated across regions and projections of theses shares have been made to 2050.

3. International

Development of an Input-Output Model for SE Kent (U.K.)

Feasibility study for the construction of an input-output model for this region.

Development of an Interregional Computable General Equilibrium Model for Korea for Development Planning and Policy Evaluation

The model linked factor and product markets and was used to assess the impacts of increased exports, increased spending and investment on individual sectors and regions within the Korean economy. This model was the first of its kind to be developed at the regional and interregional levels.

Development of an Interregional Social Accounting Model for Bangladesh for Measurement of the Impact of Agricultural Programs

The model was developed to assist in estimating the degree to which projects undertaking in one region to raise agricultural output provided employment and income impacts elsewhere in the country.

Development of a Social Accounting Model for Evros, Greece, for Policy Selection, Monitoring and Evaluation (Greek Ministry of Coordination)

Using a semi-survey method, a reduced form social accounting system was developed for this small region in NE Greece to facilitate planning development in anticipation of Greece's entry to the Common Market.

Comparative Analysis of the Structure of Australian Regional Economies (Queensland Department of the Treasury)

An attempt to isolate the degree to which economies of different size might share some common "fundamental economic structure" and thus facilitate the preparation and development of future models of their economies.

Impact of the US-Canada Free Trade Agreement on the Midwest Economies* (Economic Development Administration, U.S. Department of Commerce)

This project has focused on the regional (state level) impacts of the US-Canada Free Trade Agreement, with particular attention to the Midwest states' economies and those of New York, Pennsylvania and new England. The preliminary results suggest that the impacts are likelt to be very small although for some specific industries, the results indicate changes that exceed the annual growth in that industry for a typical year. Consideration is now being given to extending this work to include the effect of adding Mexico to the Free Trade Area in North America.

Development of a Set of Interregional Models for Impact Analysis and Policy Evaluation in Indonesia* (University of Indonesia/Midwest Universities Consortium for International Activities/Government of Indonesia/World Bank)

Development of a set of models for a 5-region division of the Indonesian economy for purposes of evaluation of alternative regional development policies. The 5-region interregional input-output models for 1980 and 1985 are complete; a two-region social accounting model has been produced and plans are now being made to develop a 5-region social accounting system and a computable general equilibrium model.

CURRICULUM VITAE

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EDUCATION	B.A.(Honors)	University of Birmingham, England 1965
	M.A.	University of Washington, Seattle 1967
	Ph.D.	University of Washington, Seattle 1969

M.A. Thesis: *Persistence of Precipitation and No Precipitation Described by a Markov Chain Probability Model: Case Studies from Selected Stations in Washington State*

Ph.D. Dissertation: *Regional Interindustry Models Derived from National Data: The Structure of the West Midlands Economy*

PRIMARY POSITIONS HELD

1965-68	***Teaching Assistant/Pre-Doctoral Associate,*** Department of Geography, University of Washington, Seattle
1968-69	***Woodrow Wilson Dissertation Fellow***, Department of Geography, University of Washington, Seattle
1969	*Instructor* (fall), Olympic College, Bremerton, Washington
1970-71	***Senior Research Associate***, Center for Research in the Social Sciences and ***Seminar Instructor***, Economics, University of Kent, Canterbury, England
1971-74	***Assistant Professor***, Division of Social Sciences, Scarborough College and Department of Geography, St. George Campus, University of Toronto, Ontario
1974-82	***Associate Professor***, Department of Geography, University of Illinois, Urbana, Illinois.
1982	(Jan-Jun) ***Acting Head***, Department of Geography, University of Illinois, Urbana, Illinois.
1982-83	*Associate Professor*, Departments of Geography and Urban and Regional Planning, University of Illinois, Urbana, Illinois.
1983-1990	***Head of Geography Department***, University of Illinois, Urbana, Illinois.
1983-	*Professor*, Departments of Geography and Urban and Regional Planning.
1989-	*Director*, Regional Economics Applications Laboratory [Joint venture between the Federal Reserve Bank of Chicago and the University of Illinois]

Relationship of Soil Levels in This Guidance to the OSWER Interim Soil Lead Directive.

A variety of Agency programs address lead under a number of statutes. Lead in soil is addressed under TSCA Title IV (including TSCA sections 402 and 403), the RCRA Corrective Action program, and CERCLA (Superfund), each of which differs somewhat in purpose and in the types of sites to which they apply. Title IV section 403 regulations, which have yet to be issued, will identify lead hazards in paint and residential dust and soil. RCRA Corrective Action applies to RCRA hazardous waste sites. CERCLA applies to sites that have been contaminated by releases of CERCLA hazardous substances (which include lead).

While this guidance applies to housing, which is a significant part of the coverage of TSCA Title IV, it is not issued under the legal standards of any of these statutes, nor is it to be used to support statutorily driven requirements of CERCLA or RCRA. Instead, the guidance is designed to allow screening of the worst sources of lead-contaminated soil related to the housing stock among the potentially huge number of sites affected. The top one percent of housing sites consists of about 1,000,000 locations.

Because there is such a large number of housing sites, the purpose of this guidance is to recommend a set of nationwide levels that will screen those sites at which, EPA expects, decisionmakers will want to consider various risk reduction activities. The higher the level and the more likely exposure will occur, the more aggressive the risk reduction activities undertaken should be. The ultimate decision, however, will be made locally by various federal, state and local officials, or by building owners, operators or occupants. These decisionmakers will need to consider a variety of issues, including the risk reduction to be achieved by different measures and the resources needed to reduce those risks. Given the wide applicability of this guidance, EPA has developed generic standards to deal with the most risky sites--in particular, those where the Agency feels most confident that actual adverse effects could occur.

The Agency's recommendations for evaluating RCRA Corrective Action and CERCLA sites are contained in the OSWER Interim Soil Lead Directive. The OSWER directive deals with a much smaller number of sites, at which extensive site characterization will have been performed before cleanup decisions are made. RCRA and CERCLA programs, thus, will often have site-specific exposure values, which may be in a relatively narrow range. As a result, values chosen for action under the RCRA or CERCLA programs may be different from those selected under this guidance. Also, once the section 403 regulations are promulgated, OSWER intends to issue a final (to replace the interim) directive.